

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

After entry of the foregoing amendment, Claims 12-22 are pending in the present application. Applicants' specification<sup>1</sup> and Claim 12 are amended by the present amendment. No new matter is added.

In the outstanding Office Action, Claims 12-22 were rejected under 35 U.S.C. 112, second paragraph; Claims 12-18, 20, and 21 were rejected under 35 U.S.C. 102(b) as anticipated by U.S. Patent No. 5,380,995 to Udd et al. (hereinafter "Udd"); Claim 22 was rejected under 35 U.S.C. 103(a) as unpatentable over Udd; and Claim 19 was indicated as including allowable subject matter.

Applicants thank the Examiner for the indication of allowable subject matter.

Regarding the rejection of Claims 12-22 under 35 U.S.C. 112, second paragraph, Applicants submit that the claim conveys at least one transducer formed, in part or in whole, by a blazed Bragg grating contacting the at least one medium. The transducer and blazed Bragg grating are not separate elements. Rather, the blazed Bragg grating constitutes part or all of the transducer. The claimed invention is not limited to one transducer. Rather, the claimed invention includes "at least one" transducer. Applicants' specification supports multiple transducers and multiple Bragg gratings. In a non-limiting example, the invention includes multiple transducers each formed by one blazed Bragg grating.<sup>2</sup> However, the invention is not limited to the examples disclosed by the specification.<sup>3</sup> In view of the above, Applicants respectfully submit that Claim 12 is adequately supported by the specification. Accordingly, Applicants request that the rejection of Claims 12-22 under 35 U.S.C. 112,

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<sup>1</sup> For the Examiner's convenience, Applicant's notes that Formula 5 of the specification is amended to include the subscript "u", i.e., E[u].

<sup>2</sup> Applicant's specification, page 12, lines 18-24.

<sup>3</sup> Applicant's specification, page 12, lines 3-14.

second paragraph, be withdrawn; and that the Examiner interpret the claimed features as recited.

Addressing now the rejection of Claims 12-18, 20, and 21 under 35 U.S.C. 102(b) as anticipated by Udd, that rejection is respectfully traversed.

As noted, independent Claim 12 recites “transducer formed by a blazed Bragg grating, in [[the]] a part of the waveguide brought into contact with the medium”. The outstanding Office Action does not address the claimed blazed Bragg grating. The Office Action even omits the term “blazed Bragg grating” from its *verbatim* recitation of Claim 12.<sup>4</sup>

To facilitate prosecution, Applicants note that a blazed Bragg grating is different from the standard Bragg grating employed in Udd. Applicants’ specification states differences between a blazed Bragg grating and standard Bragg grating;<sup>5</sup> and states advantages of a blazed Bragg grating over a standard Bragg grating.<sup>6</sup> The intended distinction is clear and should be treated.

Accordingly, as the Office Action does not establish Udd as teaching each of the claimed features, Applicants respectfully request that the rejection of Claims 12-18, 20, and 21 under 35 U.S.C. 102(b) as anticipated by Udd be withdrawn.

Addressing now the rejection of Claim 22 under 35 U.S.C. 103(a) as unpatentable over Udd, that rejection is respectfully traversed.

First, Applicants submit that the rejection of dependent Claim 22 under 35 U.S.C. 103(a) does not cure the above-noted deficiency of the rejection of base Claim 12. Second, the Office Action is taking official notice that “at the time the invention was made ... it was well known in the art that planar waveguides provide a rigid support, therefore allowing the planar waveguide to be its own support.”<sup>7</sup> According to the MPEP:

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<sup>4</sup> Office Action, 1/25/2005, page 3.

<sup>5</sup> Applicants’ specification, page 4, lines 9-23.

<sup>6</sup> Applicants’ specification, and page 23, line 22 – page 24, line 21.

<sup>7</sup> Office Action, 1/25/2005, page 6.

It is never appropriate to rely solely on "common knowledge" in the art without evidentiary support in the record, as the principal evidence upon which a rejection is based (citation omitted). ... [E]xpertise may provide sufficient support for conclusions [only] as to peripheral issues (citations omitted).<sup>8</sup>

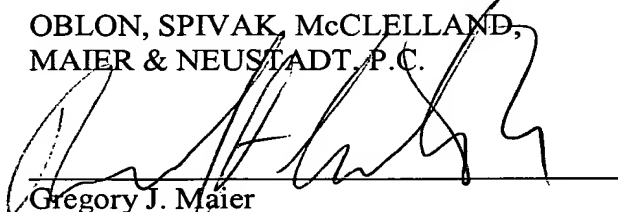
The official notice is asserted to modify the reference in a manner that teaches a claimed feature, i.e., serving as principal evidence upon which a rejection is based. Thus, Applicants respectfully traverse the official notice. Further, if the rejection is not withdrawn, Applicants request citation of a reference affirming the accuracy of the official notice.

Accordingly, for the above-stated reasons, Applicants respectfully request that the rejection of Claim 22 under 35 U.S.C. 103(a) as unpatentable over Udd be withdrawn.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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<sup>8</sup> MPEP § 2144.03(A).